

# Notice of Allowability

Application No.

09/858,235

Examiner

Thomas H. Stevens

Applicant(s)

SINCLAIR, ANDREW

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 12/19/2007.
2. ☒ The allowed claim(s) is/are 1-46 and 52-54.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-46, 52-54 were examined.

#### ***Reasons for Allowance***

2. The following is an examiner's statement of reasons for allowance: claims 1-11, 14-28, 30-44 and 46-55 are considered allowable since when reading the claims in light of the specification, as per MPEP § 2111.01, In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385 (Fed. Cir. 1983), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims.

The Applicant claims a method in utilizing said stored model data to determine for each item of said identified items of equipment a minimum possible simulated processing (pg.54, lines 18-24) time required for simulated processing of said latest initiated batch [claims 1 and 52]; wherein said storing model data further comprises storing rate data (pg.7, line 20) in relation to at least some of said processes, and wherein said determining a time increment (pg.17, lines 15-22) step size comprises, for each step in a simulations, the steps of: determining whether any process of said plurality of processes (pg.3-4, lines 20-25, 1-4, respectively) to be simulated is associated with rate data (pg.7, line 20) identifying the respective associated process as utilizing a utility at a rate; determining a minimum time increment (pg.17, lines 15-22) step size required to complete any of the processes currently being simulated; and selecting, as a time increment (pg.17, lines 15-22) step size for generating output data (pg. 35, line 2), a default time increment (pg.17, lines 15-22) step size, if at least one

process associated with rate data (pg.7, line 20) is to be simulated and said default time increment (pg.17, lines 15-22) step size is smaller than said determined (pg.39, lines 19-22) minimum time increment (pg.17, lines 15-22) step size, and selecting as said time increment (pg.17, lines 15-22) step size said determined minimum time increment (pg.17, lines 15-22) step size if no process to be simulated is associated with rate data (pg.7, line 20) or said default time increment (pg.17, lines 15-22) step size is greater than said determined minimum time increment (pg.17, lines 15-22) step size, computer program product (pg.16, lines 1-9) [claims 9 and 53]; if at least one continuation condition associated with a process being simulated is not fulfilled by said generated output data (pg. 9, lines 22-23) simulating a delay in the continued processing of said process (claim 18); determination means for determining scheduling data for initiating batches against which said processes are to be simulated; an equipment identifier operable to identify items of equipment liable to be involved in simulated processing of a next batch (discussion of batches, pg.2, lines 17) to be initiated after a latest initiated batch; a minimum cycle (pg.36, lines 20-25) time determination unit operable to determine, for items of equipment identified (pg.30, lines 15-18) by said equipment identifier, a minimum possible simulated time required by each identified item for processing said latest initiated batch; a current cycle time determination unit operable to determine, for each item of equipment identified (pg.30, lines 15-18) by said equipment identifier, a greatest time (pg.4, lines 20-25) of use for processing previously initiated batches; a scheduling unit operable to generate scheduling data for scheduling the initiation of a next batch (discussion of batches, pg.2, lines 17) to be initiated after the initiation of a

latest initiated batch, said scheduling unit configured to cause the a time between the initiation of a next batch (discussion of batches, pg.2, lines 17)to be initiated after a latest initiated batch to be equal to the greater of the a maximum of the minimum processing times said minimum cycle (pg.36,lines 20-25) time determination unit and the greatest time (pg.4, lines 20-25) in use determined by said current cycle time determination unit for items of as being liable to process said batch to be scheduled; and generation means for generating output data (pg. 35, line 2) (pg. 9, lines 22-23)indicative of a simulation of an industrial process (pg.4, lines 15-20)utilizing stored model data and scheduling data generated by said scheduling unit [claim 22];wherein said means for determining a time increment (pg.17, lines 15-22) step size comprises: means for determining whether any process of said plurality of processes (pg.3-4, lines 20-25,1-4, respectively) to be simulated is associated with rate data (pg.7, line 20)identifying the respective associated process as utilizing a utility at a rate; means for determining a minimum time increment (pg.17, lines 15-22) step size required to complete my of the processes currently being simulated; and selection means for selecting a default time increment (pg.17, lines 15-22) step size as the time increment (pg.17, lines 15-22) step size for generating output data (pg. 35, line 2), if at least one process associated with rate data (pg.7, line 20)is to be simulated and said default time increment (pg.17, lines 15-22) step size is smaller than said determined minimum time increment (pg.17, lines 15-22) step size, and for selecting said determined minimum time increment (pg.17, lines 15-22) step size as [clam 30];generation means for generating output data (pg. 35, line 2) (pg. 9, lines 22-23)indicative of a simulation of an

industrial process (pg.4, lines 15-20)utilizing said stored model data, wherein said storage means stores data indicative of one or more continuation conditions in association with each of said processes, and wherein said generation means comprises: means for determining which of said plurality of processes (pg.3-4, lines 20-25,1-4, respectively)are to be simulated in a simulation step; and means for determining, for the processes to be simulated, whether output data (pg. 9, lines 22-23)generated for a previous step in said simulation fulfils the one or more continuation conditions associated with said processes being simulated; and, if at least one continuation condition associated with a process being simulated is not fulfilled, (figure 13) for simulating a delay in the continued processing of said process, computer program product (pg.16, lines 1-9)[claims 38 and 54], as stated within the application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715.

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If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. David Vincent 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

  
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